

CLIPPEDIMAGE= JP406134917A

PAT-NO: JP406134917A

DOCUMENT-IDENTIFIER: JP 06134917 A

TITLE: EXPANDED GRAPHITE LAMINATED SHEET, EXPANDED GRAPHITE
LAMINATED
COMPOSITE MATERIAL AND PRODUCTION THEREOF

PUBN-DATE: May 17, 1994

INVENTOR-INFORMATION:

NAME

KISHINO, SHIZUO

ASSIGNEE-INFORMATION:

NAME

TAENAKA KOGYO KK

COUNTRY

N/A

APPL-NO: JP04290106

APPL-DATE: October 28, 1992

INT-CL (IPC): B32B009/04;B29C065/02 ;B32B018/00 ;C01B031/04

US-CL-CURRENT: 428/408

ABSTRACT:

PURPOSE: To provide an expanded graphite sheet composite material as a radiation and heat-barrier material excellent in drawing processability.

CONSTITUTION: Plastic films 5, 5 are superposed on both surfaces of an expanded graphite sheet 4 and melted to be bonded to the sheet 4. Metal plates 6, 6 are further superposed on both surfaces of the plastic films 5, 5 to be bonded to the films 5, 5.

COPYRIGHT: (C)1994,JPO&Japio

CLIPPEDIMAGE= JP408023183A

PAT-NO: JP408023183A

DOCUMENT-IDENTIFIER: JP 08023183 A

TITLE: STRUCTURE OF COOLING MEMBER

PUBN-DATE: January 23, 1996

INVENTOR-INFORMATION:

NAME

INOUE, TAKAO

IKEDA, JUNJI

NISHIKI, NAOMI

MORI, KAZUHIRO

ASSIGNEE-INFORMATION:

NAME

COUNTRY

MATSUSHITA ELECTRIC IND CO LTD

N/A

APPL-NO: JP06154627

APPL-DATE: July 6, 1994

INT-CL (IPC): H05K007/20;C01B031/04 ;C01B031/04 ;C01B031/04

ABSTRACT:

PURPOSE: To reduce the size and weight of heat radiating parts by employing those of graphite that is highly orientational.

CONSTITUTION: When a power transistor 2 generates heat, some of the heat is transmitted to a sealing case through a heat conductive sheet. Heat is also transmitted to a heat radiating body 5 through a metal board and a heat conductive wiring 16. As a result, the power transistor 2, if heated, is efficiently cooled. No aluminum heat radiating part is used to transmit or radiate heat, which makes it possible to reduce the size and weight of the sealing case 1 and so on. Heat generated from a power transistor 3 is radiated in the air through a heat sink 20 and is transmitted to a heat radiation board through wiring pins. The transmitted heat is further transmitted to the heat radiating body 5 and is radiated through it. The heat sink 20 is made of graphite powder. This obtains thin radiating fins and enables efficient heat radiation. Therefore, the heat sink 20 is smaller and lighter than those of aluminum.